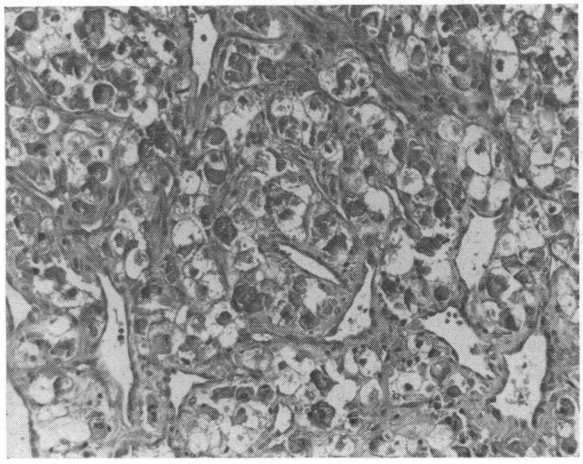

Figure 3.—Primary retroperitoneal alveolar soft part sarcoma (×100) showing characteristic alveolar cell grouping and prominent sinusoidal vascular pattern.

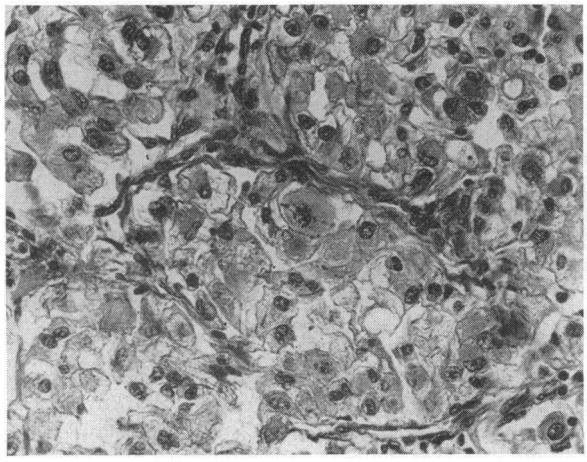

Figure 4.—Gomori trichrome (×400). Pulmonary metastasis of alveolar soft part sarcoma, showing preservation of original growth pattern, with scattered mitoses, one of which is visible centrally.

Microscopically, the tumor consisted of irregular, rounded groups of large cells surrounded by capillary vascular spaces which often appeared compressed, but occasionally were dilated in sinusoidal fashion, producing an organoid or "endocrine" type of arrangement (Figure 3).

Individual tumor cells generally appeared polyhedral or spheroidal in outline. They ranged from 15 to 70 micra in diameter and had an abundant eosinophilic granular or homogeneous ground-glass cytoplasm which often appeared vacuolated but contained scanty sudanophilic material and no demonstrable chromaffin granules. Cell nuclei were rounded to ovoid with vesicular or reticulated chromatin, usually showing a single, slightly acidophilic nucleolus. Mitoses were rare in the original surgical material, but averaged one to three per 10 high power microscopic fields in the postirradiation autopsy specimen (Figure 4).

SUMMARY

A case of alveolar soft part sarcoma of the retroperitoneum in an elderly woman is reported. Autopsy findings included ulcerative invasion of the duodenum and distant visceral metastasis following irradiation therapy.

Santa Barbara General Hospital, San Antonio Road, Santa Barbara (McQueeney).

ACKNOWLEDGMENT

We are indebted to Fred W. Stewart, M.D., Memorial Hospital, New York, and W. K. Bullock, M.D., of the Tumor Tissue Registry, Cancer Commission, C.M.A., for confirmation of the diagnosis in this case.

REFERENCES

1. Ackerman, L. V.: Atlas of Tumor Pathology, Tumors of the Retroperitoneum, Mesentery, and Peritoneum. Armed Forces Institute of Pathology, 1954, Section VI, Fasicles 23 and 24, p. 64.

2. Smetana, H. F., and Scott, W. F. Jr.: Malignant tumors of nonchromaffin paraganglia, Mil. Surgeon, 109:330-349, Oct. 1951.

Brucellosis—A Case Study

VIRGINIA KVINGE, M.D., Los Angeles

THE CHRONIC FORM of brucellosis may present many subjective symptoms which are difficult to distinguish from those of psychoneurosis—symptoms such as excessive fatigability, myalgia, low-grade fever, depression, insomnia, headache, anorexia and loss of weight. In the acute form of the disease symptoms are more objective. The onset of acute brucellosis is variable, but usually is initiated by fever of the rising "septic" type with morning remissions. Associated with the fever are a slow pulse, neutropenia, diarrhea, headache, depression, muscular aching, fatigue and shifting joint pain. When fever is of the undulant type, febrile episodes persist for ten to twelve days and are followed by periods when the patient is afebrile and asymptomatic. In most cases there are no such undulations and the patient remains ill for two weeks to ten months. In the differential diagnosis of brucellosis, consideration should be given to typhoid fever, Q fever, miliary tuberculosis, chronic recurring infectious mononucleosis, pulmonary or systemic coccidioidomycosis, rheumatoid arthritis, and Boeck's sarcoid.

The clinical diagnosis of brucellosis, therefore, must be substantiated by laboratory diagnosis. Of the many laboratory procedures available, the only absolutely diagnostic criterion is a positive blood culture. If routine blood cultural methods are used, the chance of identifying and isolating the organism

From the Services of Dr. A. G. Bower, Chief Physician, Communicable Disease Unit of the Los Angeles County General Hospital.

Submitted January 20, 1958.

is practically nil. By use of special culture media—trypticase soy broth and agar cultures—under anaerobic conditions the organism can be identified in a higher proportion of cases whether in the afebrile chronic state or in the acute stage.

The diagnosis of brucellosis by means of a high agglutination titer is generally, but not absolutely, reliable. Huddelson reported cases of negative results of agglutination tests in bacteriologically proven cases of infection with *Brucella abortus*. Also persons vaccinated against cholera may have high titers for brucellosis. An agglutination titer of 1:80 or higher, with either a rising or falling titer during the course of observation, is usually regarded as indicative of the disease.

The complement fixation and opsonocytophagic tests has given unreliable results and as a consequence has been discarded by most clinicians. The brucellergin skin test is still in use in diagnosis by some clinicians, but most have discarded it as not diagnostic. It may cause a local slough at the site of injection, and it may induce antibody formation which later will interfere with evaluation of agglutination titers. Negative results of the brucellergin skin test have been reported in many cases in which bacteremia was demonstrated, and positive skin reactions have been reported in persons having no clinical manifestation of disease.

REPORT OF A CASE

Four weeks before admittance to hospital, a 64-year-old unemployed Mexican farm laborer had chills and fever while vacationing in Juarez, Mexico. The chills and fever occurred on alternate days for a total of five days and were associated with cramping pains in the legs. Upon subsidence of fever, diarrhea developed, the patient passing seven to fifteen yellowish watery stools a day. This persisted until admittance to hospital. Four days before admittance, fever recurred and the patient then for the first time sought medical attention. He was referred to the Communicable Disease Unit of the Los Angeles County General Hospital because of suspicion of typhoid fever. The patient had received no antibiotics or sulfonamides during the previous month. He had lived in Juarez, Mexico, until 1956, but said he had had no similar episode.

He was observed to be depressed, lethargic and confused. The temperature was 100.8°F., the pulse rate 104. No rash, joint involvement or splenomegaly was noted. Leukocytes numbered 3,500 per cu. mm., with 49 per cent neutrophils. The serum agglutination titer for brucella was 1:10,240 on one occasion and 1:5,120 on another. *Brucella abortus* was cultured on trypticase soy broth and agar in three separate blood cultures.

The patient was started on a ten-day course of 1 per cent sulfanilamide in sodium lactate Ringer solution by hypodermoclysis and 1 gram of streptomycin every 12 hours. The blood level of sulfanilamide was to be maintained at 15 mg. per 100 cc. or higher. The original dose was calculated at 0.12 gm. per pound of body weight to be given in three equal doses at eight-hour intervals over a period of 24 hours. This amount was gradually decreased, but the blood level of the drug remained at 30 to 40 mg. per 100 cc.

During therapy, blueness of the lips and skin was noted. Methemoglobin determinations were done and values as high as 0.17 mg. per 100 cc. were obtained. The sulfanilamide dosage was diminished but not discontinued. Ascorbic acid, 500 mg. three times a day was given and the bluish color diminuted. The urinary pH was maintained at 7.5 to prevent sulfa-crystal formation in the urine. Serum electrolytes remained normal throughout therapy. On the eighth day of therapy the patient became afebrile, but subjective depression did not subside until a week after cessation of treatment. He was discharged on the 24th day of hospitalization, two weeks after fever and other symptoms had disappeared.

SUMMARY

A patient admitted to hospital with suspicion of typhoid fever, had high titration for brucellosis, and *Brucella abortus* grew on a culture of blood. The patient was treated with sulfanilamide and streptomycin and a cure was effected.

Wadsworth General Hospital, Sawtelle and Wilshire Boulevard, Los Angeles 25.

REFERENCES

1. Bower, A. G.: Brucellosis, Arizona Med., 7:23-31, Jan. 1950.

2. Bower, A. G., Chudnoff, J. S.: Laboratory procedures in diagnosis of brucellosis, Calif. Med., 69:131-132, Aug. 1948.

3. Harris, H. J.: Brucellosis, P. B. Hoeber, Inc., New York, 1941.

4. Huddelson, I. F.: Brucellosis in Man and Animal, Oxford Univ. Press, New York, 1943.